

Notes on the Flying Frog

Rhacophorus nigropalmatus.

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Mr. A. D. Machado, one of the most constant benefactors to the Raffles Museum, presented last year a specimen of a Flying Frog from Pahang which I have only recently been able to identify as *Rhacophorus nigropalmatus*. As only two specimens of this species have so far been recorded, the one obtained by Dr. Charles Hose from the Akan River, Borneo (see G. A. Boulenger, A. M. N. H. (6), XVI, p. 170), and the other obtained by Mr. L. Wray in the Piah Valley, Upper Perak (see S. S. Flower, P. Z. S., 1899, p. 899), this third specimen appears to deserve a special note.

Mr. Machado writes: "I caught this specimen in an old prospecting pit one morning (January 1899) at Kuala Merbao in Ulu Pahang. He had evidently fallen into it and could not get out. I found him swimming about in the water. The pit was about twelve feet deep."

The specimen shows in external characters no difference from those described by Boulenger and Flower, except slightly as regards its cutaneous fringes and coloration. The fringes of the arm seem to be more developed than in either of the other two specimens: there is one not only along the outer edge of the fore-arm continued right to the tip of the fifth finger, but also a smaller triangular one along the inner side, beginning at the proximal end of the upper arm and ending at the distal end of the fore-arm, being widest at the elbow joint. There is a semilunar flap on the tibio-tarsal articulation, as in the other specimens, and, after a break, a narrow fringe along the outer side of the tarsus to the tip of the fifth toe. A very much smaller fringe runs along the first toe. A flap of skin above the cloaca is scarcely noticeable.

When alive, the colour was a bright green above, but now, in spirit, a dark slate-grey with a purplish hue, with numerous minute white dots, isolated or in groups. There are five very conspicuous white spots on the upper surface of the thigh, one of them close to its origin, the other four a little lower down, arranged in a square. The flanks are whitish, veined with black, as in the Bornean specimen, the lower surface is a yellowish white. The enormous interdigital membranes are black near their base, but yellowish towards the edges, with yellow rays going into the black portion.

The specimen is male, its testes being very large, 15 mm. in length. The Bornean specimen was female, whilst there is no record of the sex of the Perak specimen.

Its length from snout to vent is 84 mm., against 80 mm. in the case of the Bornean and 98 mm. in the Perak specimen.

The Flying Frog of which Wallace (Malay Archipelago, 10th edition, p.30) gives such a graphic description, is *Rhacophorus pardalis* and occurs in Borneo and the Philippines, whilst a third Malayan species, *Rh. reinwardtii*, occurs in Java and Sumatra. Very similar species are found in Malabar (*Rh. malabarius*), the Eastern Himalayan region (*Rh. bimaculatus*) and Madagascar (*Rh. madagascariensis*).

Some New Eastern Gingers.

The following new species of *Scitamineæ* have passed through my hands since writing the paper published in Journal No. 32 and do not appear to be described in Schumann's paper. *Alpinia pectinata* n. sp. Plant 4 to 7 feet tall. Leaves oblong lanceolate glabrous thinly coriaceous, blade 20 inches long 4 inches wide with a thick keel, ocrea obtuse. Panicle pendulous secund, with a long thick peduncle, dense with short crowded branches. Bracts many obconic half an inch long papery brown. Flowers pedicelled, pedicels in fruit: $\frac{1}{2}$ inch long. Capsule globose trilocular $\frac{1}{2}$ inch long. Seeds very numerous.

Celebes at Gunong Klabat 1300 to 1600 metres elevation, fruiting in January.

A remarkable plant in its one sided panicle with very short branches bearing heads crowded together, about 100 in a panicle.